BLACKFRIARS

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PACIFIC ACTION

IN the last issue of BLACKFRIARS, without apology or explanation we published a series of articles on the Dominican Order . The domestic exposure may have been regarded as conceited self-advertisement, or even as implied criticism of other ways of life. Nothing of this kind, of course, occurred to the compilers of the number. The aim at least was honourable and perhaps of some importance. First of all, this April issue of the review marks its Silver Jubilee. For twenty-five years BLACKFRIARS has been edited by English Dominicans with, perhaps, insufficient reference to the ideals for which the Dominican Order and its publications stand. The policy and goal of the Order are those of the Review edited by the Friars Preachers. Thus with the completion of our twenty-fifth year we took occasion in this indirect way to re-state our policy.

The aim of the March issue did not stop there. One of the basic principles of the Dominican ideal provides so important a lesson in these days of attempted peace-making that we will here elaborate the theme in greater detail. The activity of the preacher is one which proceeds from and includes his contemplation; it is contem-

plative action. The only kind of action that is likely to make for peace is the action that proceeds from contemplation. Pacific action then is of its nature contemplative.

The future peace seems threatened in the main because the principles upon which we are prepared to order Europe and the world are material principles. Power and property are the chief ingredients of the plans for the order to be drawn from present chaos. The size of armies, the efficiency of their mechanical instruments of war, raw materials and industries seem to be the factors likely to guide statesmen in their decisions. It is of the nature of material things, however, that they cannot be possessed and given away at the same time. They can only be multiplied numerically and that by a process of birth or manufacture. Raw materials and industrial plant, power and property cannot therefore be shared in any full sense. Several nations could have *part* interest in a group of coal mines, but they could not all possess the mines wholly; the mines could not be common to separate and independent nations. The more shares in the mines the first nation gives to the second the less it has for itself. It is all a question of addition and subtraction and is worked out by figures in a ledger. A purely material peace settlement would therefore be one of mathematics. We are in fact in these days in great danger from mathematics. If statesmen plan to move numbers of men, the mathematical units, from one place to another, to dispose of raw materials, industrial areas, etc., in like manner, it will be merely a 'share-out,' which means division rather than union. And if the victorious nations at the end of the war base themselves on such a material division it is more than likely that to those who have, it shall be given—by human machination rather than by the blessing of Providence.

It is clear that the very nature of such a settlement puts it beyond hope of peace. It would be merely laying out the map for the next war, which would come as soon as the nations saw a chance of a division of material goods more advantageous to themselves. It is useless to urge the greater to give a share of their power and possessions to the less. A nation will not give generously in an atmosphere where power is the dominant factor.

The plans and actions of the peace-maker must be those of the contemplative, giving to others the fruits of his contemplation. Spiritual goods are poossessed more thoroughly when they are given away; and the man who gives away what he has come upon in the secluded fields of prayer and culture finds himself with a greater store of the treasure he originally discovered. In this way, for example, the apostolic life is an extension of the contemplative. A

man in possession of the truth, or rather possessed by the truth, will gain deeper and more secure hold of what he has the more he spreads it abroad among his fellows. A spiritual 'good' can be shared by any number of immaterial beings. A thousand human minds can know the same truth, a thousand human wills can love the same Being. This can be seen in the ordinary process of the acquisition of knowledge. A man who has taken a degree entitling him to teach physics may have a thorough grasp of the principles of his science, but it is not until he has seen these principles in relation to other human intelligences and worked to impart his knowledge to these others that he can really be said to know them, to have mastered them; so the old rule was that a man did not become a Master in Theology or Arts until he had taught his subject for several years. He masters the truth as he teaches.

There is a sense in which this principle can also be applied to the moral spiritual goods, which are the virtues. The more patience or benignity one shows to another, the more patient and benign he becomes in himself. The lives of the saints show how their virtues grew in geometric progression as they poured them out upon others. The Benedictine saint seeks peace not only for himself, but to establish peace among men, and the more he extends his peaceful influence the more the tranquility of order floods his own soul. Indeed, all this is obviously true. Whatever spiritual good predominates in a man, that he conceives it his duty to give to the world; in contrast to material goods which when possessed incline the owner to withold them from the rest of the world.

In seeking justice and mercy we inevitably desire to spread these virtues abroad. Love inclines us to give ourselves to others, and as we give so we deepen and strengthen our love. In any pacific action, then, the first principle is to impart to others these good things of the spirit which we desire for ourselves. We desire to obtain justice, then we must first set out to be just to others. In seeking a just order among nations this is of the greatest importance: it means that the primary action is one of giving to others and the abandonment of self-seeking among the nations.

Strictly apostolic propagation of truth and culture—as long as these remain objective, free from the subjective aberrations of nationalism—should lie at the root of all tranquillizing efforts, for it is the extension of the pacific and contemplative spirit. In order to consolidate the true order of justice among nations it is not sufficient to see that the smaller ones receive what is strictly due to them by rights. There must be also a real movement to share the specifically human goods of religion and culture which will increase

by being shared and will form the only sure binding force among men. We cannot, for example, be indifferent as to whether the government of a nation upholds or persecutes Christianity; such indifference can only arise when religion is treated as a material commodity to be divided up like land or raw materials. To regard the religion of one nation as of no concern to the others, is to regard its attitude to human nature as of no concern of others and so to allow Nazism and the other modern attacks on humanity a free breeding ground. Religion and things of the mind must be shared in order to provide some positive basis of communication.

It is therefore of the first importance that men should seek to share the fruits of their contemplation, in the sense implied, in order that the nations may live in a spirit of communion and peace. There was once a time when the universities as well as the Catholic faith were international and provided the principle of communion in a family of nations and the means of reordering and reorganising after the warring family quarrels. To-day, however, we scarcely dare suggest that international colleges for workers should be founded, because internationalism has been so much abused by the mathematical and material spirit referred to above. It is nevertheless absolutely necessary that the nations learn to share the things of the spirit, to pool the treasures of the intellectual life. It is useless to restrict the communion of nations to some abstract forms of international law based on the rights of man. Christian virtues and Christian culture must be extended to all. At the same time the victors must avoid at all costs the role of an old aunt teaching naughty nephews how to behave, and that can only be avoided by a realisation that the things of the mind really are common and not English or American, French or German. A religion that is catholic provides the only ultimate basis for pacification, so that there must at least be a movement towards a genuine re-union of Christendom. Failing that there must be a catholic sense regarding the common heritage of culture. Exclusive national culture constitutes an attack on the brotherhood of man only one degree less virulent than that of a national religion. Let there be no douanes between French, German, Italian, Russian or English culture; duty exacted on these will go to pay for a more barbaric war in the future.

* * * * *

The National Peace Council has recently been engaged in stalwart work along these lines, searching unflaggingly and with greater success than any other group at the present time for a positive and constructive peace. They have produced some excellent litera-

ture in the form of pamphlets and books. One is not expected to agree with all the views of the authors of these publications, nor does the N.P.C. commit itself to them, but the Council is evidently determined to leave no stone unturned that might reveal a way, if not the way, to peace.[1] Some of these essays consider the material, economic re-adjustment required for a general re-establishment of order among the nations. But none of them is limited to this; they all take the more 'contemplative' view, showing the hopelessness of peace by compulsion (Dr. Jacks—though he thinks it inevitable); the need for the re-establishment of civilised values (Professor Laski—though in order to abolish hatred he proposes to liquidate not only Hitler, Mussolini and Tojo, but also Fr. Coughlin, Mosley, Franco, Laval, and many others!); the impossibility of educating Germany from outside (Professor Leibholz). Of particular value is the Rev. Henry Carter's book, which gathers in a short space the documents of the plans and proposals of all the international functional agencies, U.N.R.R.A., International Labour Organisation, and many others—the Earl of Perth rightly says in his Foreword that 'the work cannot but prove of the greatest assistance to all who are concerned directly or indirectly with social relief and recovery.'

But perhaps the most important service that the Council has done for peace is to have sponsored in *Peace News* (Feb. 16th, 1945) an article by Mr. Christopher Dawson on 'World Barbarism or World Order.'

> 'The immense advance in material resources and technical control of which the present war is a monstrous and perverted manifestation could revolutionise the conditions of human life on a world-wide scale if only they would be re-directed to the service of humanity in a constructive spirit. But before this can come about, there must be a profound change in the whole spirit of our civilisation. It is a religious rather than a political issue, since it involves the deeper forces of religious faith and spiritual will which are the really creative elements in social as well as individual life.'

Mr. Dawson does not leave his jugdment in the air. He reminds us of the moderation and constructive vision of the peace of 1815 which has at least brought peace between England and France

[1] *Towards World Recovery*, by Rev. Henry Carter (2/6); *Peace by Compulsion?* by Dr. L. P. Jacks (6d.); *Re-educating Germans?* Dr. G. Leibholz and E. F. Allnutt (6d.); *Will the Peace Last?* Prof. H. J. Laski (4d.); *The Road to Security*, Prof. D. Mitrany (4d.), from The National Peace Council, 144 Southampton Road, W.C.1.

for 130 years. That provides a pointer to what might be achieved in a wider field.

But Mr. Dawson with all the other writers on peace is compelled to fall back on the slender hope of a general change of heart on the part of victors and vanquished alike. It is in fact the only hope—and the rock upon which all future hopes for peace will founder; for humanly speaking the chances of its being brought about are of the slenderest. In this way Dr. Belden's plan for abolishing all war (by the simple expedient of getting the 500,000,000 Christians throughout the world to pledge themselves to refuse the Act of war when called upon to do so by their church leaders),[2] is as practical as any other. Unhappily the kingdom of God is not of this world.

There are indeed arguments in favour of more limited negative aims which might be practical even without a world-wide conversion of heart. The abolition of military conscription has been proposed as a practical solution. A number of Bishops, including Cardinal Manning, submitted a *Postulatum* to the Vatican Council to this effect, but there was no time to consider it. It ran: 'The present condition of the world has assuredly become intolerable on account of the huge standing and conscript armies. The nations groan under the burden of the expense of maintaining them' (*cf. The Catholic Peacemaker* newsletter). Then Benedict XV advocated the abolition of conscription at the end of the last war. Mr. Stormont Murray, who discloses and discusses this fact in the *Bulletin* for Conscientious Objectors (Feb., 1945), nevertheless warns us that this is only a small part of the universal conscription now taken for granted. If we accept the conscription implicit in nearly every phase of industrial life to-day we cannot have a conscience to object to military service.

> 'If in his working hours and also in his mechanised leisure-time occupations, the initiative, responsibility, skill and creativity of the human person is systematically denied, the powers-that-be need not worry about where their cannon fodder is to come from. . . That the C.O. movement arose with reference to war rather than to the many other social evils has always struck me as strange. It has to do with the decline in religious belief, I presume, and the consequent valuation of this life as the only life, and therefore the loss of this life as the supreme tragedy.'

Even this limited aim, then, involves far wider issues, since war is the symptom of a disease rather than the disease itself.

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[2] *Pax Christi. A New Policy for Christendom To-day.* By Albert B. Belden, D.D. (Carwal Publications, 3/6).

Real hope therefore lies more in the immediate practical diagnosis of present social ills and direct suggestions as to their remedy rather than in utopian dreams of no armies and no war. The statement on a Just and Lasting Peace issued in February by the Hierarchies of England and Wales and Scotland is particularly welcome for this reason. It is fully 'contemplative,' in the sense we here use the word, and it applies the general principles of democracy to the present situation. It is to be hoped that the N.P.C. will include this statement in its published documents. And with it the Council might publish the excellent summary of the Christian principles of nationalism and internationalism compiled by Bishop Muench and adopted by several Catholic Societies in America,[3] and above all Pope Pius XII's Christmas address on Democracy. Hope is slender, but such as it is it lies in the immediate application of spiritual realities to the present human entanglements.

THE EDITOR.

NOTE.

The National Peace Council (144 Southampton Row, London, W.C.1) makes some recent announcements; (*a*) Closing date for the National Petition for a Constructive Peace is April 14th (though completed forms should now be sent in as soon as possible), and the Council appeals for the fullest effort to increase the number of signatures before that date so as to strengthen its influence on the San Francisco Conference and the British delegates to whom it is to be presented; (*b*) The Council's standing Peace Aims Conference is to discuss *Democracy and the Post-war Settlement* at St. Hilda's College, Oxford, from April 13th to 16th, and though accommodation for non-members of the Conference is limited, applications to attend from members of interested organisations will be considered; and (*c*) The Council and its associated organisations are to hold a mass meeting in support of 'A Constructive Peace' at the Central Hall, Westminster, on May 30th.

[3] To be had for ten cents from *The Central Bureau Press*, 3835 Westminster Place, S. Louis, 8, Mo., U.S.A.

by St. Augustine eight hundred years earlier. It was not a philosophical system which denied the existence of matter, it was a religious system which held that matter was wholly evil. Marriage was wrong, taking life was wrong, eating animal food was wrong, sacraments were valueless—everything that concerned the material side of man's nature must be thrust away, hidden in a corner. The Catholic religion, these heretics maintained, was something carnal, material, false to its mission.

Against that background of error St. Thomas built up his Aristotelian philosophy, his theology of the Incarnation. Matter was not something which human thought could thrust away out of sight, the sensible world was not something that could be despised utterly; on the contrary, it was from our sensible experience that all our knowledge ultimately came. Matter was not something evil; God himself had become flesh, had sanctified a fallen earth with his tread, had bound up some of his chief graces with the sacramental use of material things. 'God and his Creatures'—what a world of comfort there is in the very formula which, instinctively, the name of St. Thomas conjures up to us; God's creatures, not the work of some jealous demiurge, acting in defiance of his will; creatures representing God and conveying good to man; the cosy furniture of this, our temporary home!

In our day, the chief danger lies in the opposite direction. Our minds are ruled, more than we know, by suggestion and association. And the mechanised world in which we live, eating eggs that come out of a tin, with unpiloted aeroplanes droning overhead, seems to have put us at the mercy of our own inventions; the machinery we created to be a useful servant has become a pitiless master. And it is not wonderful if the bent of the human mind is towards a mechanical explanation of things; if a popular philosophy traces every act of the mind, every development in history, to blind, irresistible forces that have no human will directing them. And still we need the splendid sanity of St. Thomas to convince ourselves and to persuade others that such a view, once again, is only looking at one side of the picture. Sense experience is not knowledge, does not account for knowledge, could not by itself develop into knowledge; there must be a spiritual principle at work. Trained instinct does not account for all our behaviour; a place must be left in your scheme for purposive will. God and his creatures; those creatures dazzle us by their complexity, daunt us by their persistent presence at our elbows; but they are his.

And the other great buttress which seems to stand out from St. Thomas's thought is the unity of the sciences. It was a decisive

moment in the world's history when St. Albert and St. Thomas, in defiance of so much nervous opposition, determined to make a Christian of Aristotle; Aristotle, the master-knower, the flower of pagan enlightenment. The Arabs had already adopted him, but they never made a Mohammedan of him. It is one of the most striking proofs of the superiority of Christianity to Islam, that when both tried the same philosophical diet we could digest it and they coundn't. In the Mahommedan world, the result was a struggle between the theologians and the philosophers, and the theologians won. They buried Aristotle away, like a dangerous explosive; and the Mahommedan culture, till then a dangerous rival to our own, became sterile. The Crusades were not yet over; we had not yet fought them to a standstill; but we had thought them to a standstill; nay, we had thought them back into the desert.

And if we did that, if the Christian world did that, the praise is due, under God, to St. Thomas's fearless instinct that you must not be afraid of knowledge; that truth could not contradict truth, and whatever in Greek philosophy was true would harmonise with the Christian tradition; they would link together automatically, like St. Peter's chains. He had to fight an ultra-orthodox party, which dreaded Aristotle as a materialist. He had to fight another set of thinkers, who accepted Aristotle as philosophical truth, and, because they could not fit the Christian tradition into his system, invented a distinction between two kinds of truth, philosophical and theological. No, truth was and ever must be one; philosophy was the handmaid of theology, and where you could bring them to an understanding, there you had the perfect *ménage*.

To-day, for a multitude of reasons, we have far less apparatus than St. Thomas's contemporaries ever had for integrating our thought. Learning and speculation have so multiplied that it is hard, even within the sphere of theology itself, for one man to be more than a specialist; and you will find a dogmatic theologian attaching importance, perhaps, to some isolated text which the Scripture professors have decided to interpret in quite another sense. And when you survey the field of the sciences generally, the psychologists interpreting everything in terms of mental aberration, the economist interpreting everything in terms of bread and butter, the physicists annihilating matter, limiting space, and snapping their fingers at law—what synthesis is possible in such a rough and tumble as that? Once more men's minds are tempted to wonder whether religious truth isn't perhaps an altogether different kind of truth, valid in its own sphere just as the economist's truth or the physicist's truth are valid in theirs. Philosophy, even, that was once the handmaid of

theology, seems to have given notice, and the most theology can hope for is a little occasional help. Is it not time, perhaps, that religion should shut itself up in its own precincts, and live its own life in isolation from the debates of the world around it?

Once more, against this subtler peril, we have to arm ourselves with the thought of St. Thomas. Somehow, sooner or later, the multitudinous opinions of our time have got to be integrated, unless we are all to end in the mad-house. And we know that because our religion is true the Christian theology must inevitably fit in with the rest, and fit in as the key-piece of the whole structure. It is, I think, to the sons of St. Dominic, with their roots so firmly fixed in the past, their minds so keenly alive to the atmosphere of the present, that we look most confidently to achieve that vast synthesis in its time.

'A treasure men will find inexhaustible'; those were the concluding words of my text—are the works of St. Thomas inexhaustible? Not, evidently, in the sense that he could foresee all the discoveries which would be made, all the theories which would be propounded, by the scientists of later ages, and frame his speech to allow for them. Not even in the sense that he could foresee, in their precise form, all the hesitations of the philosophers who would come after him, the subtle distinctions they would draw, the analogies by which they would illustrate their thought. But the channel has been buoyed now; and the modern explorer, be he as adventurous as he will, marks, and will ever mark, the indelible traces of the Master Mariner's passage.

Meanwhile, Reverend Fathers, let us remind ourselves again that we did not come here to admire the profundity of a great human genius, and the record of his achievement. We are here to thank God for the life of a poor Friar, who kept the rule and scrubbed his cell and said his office and loved our Blessed Lady like the rest of us. If he had never put pen to paper, earth would be the poorer for it, but heaven would not have missed a citizen. He had that holiness, that setapartness, which would have supernaturalised his life's work, whatever his life's work had been. He entered the kingdom of heaven as a little child; it is the only entrance. Let us ask him to win us his purity, his humility, his love of obedience, before we ask for any tincture of his learning.

RONALD KNOX.

THE EXPERIMENTAL METHOD IN THE MIDDLE AGES[1]

It is probable that since the beginning of civilisation there has never been a high culture without some kind of systematic study of matter. The Egyptians and Babylonians were metallurgists, architects, physicians, astronomers and mathematicians. The Greeks inherited some part of their tradition and transformed it from technique to philosophy. A scientific world-view emerged; theoretical systems of the sciences and natural histories, good and bad, expressed this view and the facts which it attempted to explain; and the corpus of Greek scientific writings remained as the chief inspiration and fountain of science until the seventeenth century, nor is its influence extinct to-day. Between 150 B.C. and 450 A.D. Greek science gradually died, but the record of it, preserved in Greek manuscripts, remained known to those who spoke that tongue. Thus in the sixth and seventh centuries there was considerable philosophical and scientific activity in Byzantium, Syria and Persia, and this later inspired the culture of Islam; but since very little had been translated into Latin, the knowledge of science in the Western world sunk to a low ebb.

Boethius and Cassiodorus recorded brief summaries of mathematics and the liberal arts. Dionysius Exiguus introduced the Christian era and a system of calculating the calendar: these and one or two slight medical treatises comprised most of the science known to the West. In the seventh century Isidore of Seville is the only light. His best work is a *De Natura Rerum* (P.L. 83, 965), dedicated to Sisebutus, king of the Goths from 612-621. In a condensed and lexicographic style he gives brief abstracts of the ancients' knowledge of astronomy, geography, meteorology and other sciences. This work and his better-known *Etymologies* were very influential and were quoted as authorities for nearly a millennium. In the early eighth century Bede writes in a fuller and more interesting way on scientific matters, but we cannot attribute to him any original observations. The same is true of that remarkable genius John Scotus Erigena, whose condemned work *De Divisione Naturae* shows a remarkable knowledge and critical understanding of Greek science.

[1] The substance of a paper read at the Newman Association Congress, held at Ampleforth Abbey, August, 1944.

Beside that literary tradition was a practical one, manifest especially in medical works such as the Saxon leechdooms. These contain traditions from Greek science, and although they included old wives' spells and folk-remedies, they were at least practical medicine and made some contact with real things. Here are examples :[2]

> Against lice : pound oak-bark and a little wormwood in ale : give to the lousy one to drink : against lice : quicksilver and old butter : one penny weight of quicksilver and two of butter : mingle all together in a brazen vessel.
>
> In case a man be lunatic : take the skin of a mereswine or porpoise, work it into a whip, swinge the man therewith, soon he will be well. Amen.
>
> If thou be not able to stanch a blood-letting incision, take new horse-dung, dry it in the sun, rub it to dust thoroughly well, lay the dust very thick on a linen cloth ; wrap up the wound with it.

The idea that a philosopher, as distinguished from a physician, should do anything with his hands begins to appear at the end of the first millennium of the Christian era. The first practical science we hear of is that of Gerbert, who, we may notice, had been in contact with Arab culture in Spain. We are told that ' with his own hands he constructed a clock which used water as motive power and whose movement was regulated by the pole-star,' which, we may suppose, means that he constructed a 24-hour clepsydra. In view of the alleged opposition of the Church to experimental science, we may remark that she enthroned Gerbert, its first exponent in the West, as Pope Sylvester II.

Perhaps it is this experimental tendency that appears in William of Malmesbury's account of his fellow-monk Eilmer, the first English aeronaut, who ' by some contrivance fastened wings to his hands and feet . . . and, gathering the breeze, on the summit of a tower, had flown for more than the distance of a furlong (*stadium et plus*); but agitated by the violence of the wind and storm, as well as by the consciousness of his rash attempt, he fell and broke his legs, and was lame ever after. He used to relate as the cause of his failure that he had forgotten to provide himself with a tail at the back.'[3]

The theoretical science of this early period showed little advance over that of the dark ages. There was, indeed, an interest in nature,

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[2] *Leechdoms, Wortcunning and Starcraft of Early England.* Cockayne. Rolls Series, 1865. Vol. II, pp. 125, 335, 341.

[3] *Gesta Regum Anglorum*, Lib. ii, §225 *ad fin.* (Rolls Series, Vol. I, p. 276: P.L. 179, 1206.)

but one that seems to the scientist of to-day most strange. The modern scientist asks 'How does the machine of the world work?' the great scholastics asked 'How does the hierarchy of beings fulfil God's plan?' but the natural philosopher of the eleventh and earlier centuries asked 'What does the outward show of the world signify?' The function of nature was to act as a sign of something hidden; the world was an assemblage of symbols of divine truth.

The bestiaries are admirable examples of this attitude, but it may also be well seen in an author who was acquainted, though very imperfectly, with the elements of Aristotelian learning, namely Alexander Nequam or Neckam. He is interested in natural phenomena, but cannot describe any of them without explaining its symbolic significance. Thus:

LI. OF QUICKLIME.

> They say that quicklime contains a hidden fire, though it be cold to the touch, wherefore if water be poured over it, the hidden fire at once breaks out. Wonderful thing! After it has been burnt, it is set on fire by water (which is wont to put out fire) but is put out by oil. So also humility is well nourished by tribulation, but often perishes in prosperity.[4]

Neckam's information comes from many sources, including his own observation, but it has little or no reference to practical investigation, and is not systematised into science.

From about 1125 the scientific knowledge that the Arabs had borrowed from the Greeks began to enter Western Europe, and wherever there was contact with Arab learning we see science stimulated into rapid growth. The western scientist who was more than a copyist or a craftsman was an Englishman, Adelard of Bath, whose works cover the period from c. 1109-1145. He visited Palestine, learnt Arabic and studied the Arab Masters, as he called them. He wrote on arithmetic and astronomy, including treatises on the abacus and the astrolabe. From these we deduce his interest in instruments, and we have evidence that he made practical observations. His best known work 'On very difficult natural questions'[5] is in the form of a dialogue between himself and a nephew, who is as critical of the Arab Masters as Neckam is enthusiastic. The

[4] *De Naturis Rerum.* Ed. Thomas Wright. (Rolls Series, 1863, p. 160.)

[5] *Quaestiones naturales perdifficiles Adelardi Bachonienses* (sic). Joh. de Paderborna. Louvain, 1480(?). *Quaestiones naturales*, ed. M. Müller, Münster in W. (B.G.P.M. xxxi, L.ii). *Dodi ve-nechdi* (uncle and nephew) . . . ed. with an Engl. tr. to which is added the first Engl. tr. from the Latin of Adelard of Bath's *Questiones naturales* by H. Gollancz; Oxford, 1920.

questions posed were mostly enquiries concerning the reasons for simple natural phenomena: Why is the sea salt? Why can one blow both hot and cool breath? Why do some animals chew the cud and not others? and the like. He gives somewhat ingenuous explanations, almost always based on the varying proportions of the four elements and their resultant tempering of the four qualities. He extols the power of reason in investigating such matters, but in fact his reason is mainly used in deciding what authority is to be followed.

Adelard appears not only to have visited Syria, but also to have spent some time in Spain and at the Norman court of Sicily, which, with Apulia, was the centre of science in the twelfth and early thirteenth centuries. Even before this time Sicily and Southern Italy has been a meeting-place of Greek, Arabic, Jewish and Latin culture. Salerno had for a century been a centre of medical learning, from which had emerged a number of remarkably clear and concise text-books. Sicily and Southern Italy, meeting places of East and West, were distinguished by a series of remarkable rulers, whose interests in the arts and sciences were scarcely to be paralleled before the time of the Renaissance. Roger of Sicily was primarily interested in geography, and consequently in astronomy, and it was for him that the Arab geographer Idrisi made his famous map of the world, the best for several centuries. The contact between the readers and writers of the different tongues led to an astonishing series of translations. Parts of Aristotle and Ptolemy, the *Optics* and *Catoptrics* of Euclid, and the *De Motu* of Proclus were translated from the Greek. The proportion of scientific works was high. This was not a revival of mere literary learning; rather was the object of the translator to make the craft, science and philosophy of Greece and Islam available to the Latins.

The most remarkable figure of the age, and the most notable exponent of practical science, was Frederick II of Hohenstaufen, Holy Roman Emperor, King of Sicily and Jerusalem, *Stupor mundi et immutator mirabilis*. Born in 1194, he succeeded to the throne of Sicily at the age of four. His political activities are too many, his private life too scandalous, to be narrated here. He lived very much as the Oriental despot—not for nothing was he known as the 'baptised Sultan of Sicily.' He consorted freely with Arabs, Jews, Greeks and Christians; and the effect of their religious differences was, it would seem, to make him a thorough sceptic in such matters. Yet, hardened, cruel and infidel as he became, his biographer Fra Salimbene could say 'I have seen him and at one time I loved him; in truth there would have been few rulers in the world like him, had he loved God, the Church, and his own soul.'

But, his personal defects aside, he must be hailed as scientist and patron of science. He has left us his great treatise on Falconry,[6] which is full of accurate first-hand descriptions of birds and is by far the most original work of its day. He neglected no source of information. Thus he employed Michael Scot to translate the works of Aristotle and Avicenna on animals; he sent questionnaires to the Arab potentates and their philosophers; he despatched messengers as far afield as Norway to enquire into the truth of alleged wonders of nature; and lastly he was himself in contact with the means and subjects of science. He collected instruments, and had an extraordinary menagerie of elephants, dromedaries, camels, lions, panthers, leopards and monkeys—even a giraffe, sent to him by the Sultan of Cairo. He certainly experimented with the hatching of ostrich eggs in the sun, and with the practice of artificial incubation. We may doubt the story of his investigation of the respective effects of sleep and exercise upon digestion by feasting two men, then sending one to hunt and the other to sleep, and later ripping up both of them; but the tale of his experiment of bringing up children in silence in order to discover what language they would speak is confirmed by its sequel, the death of both the children,—which is an anticlimax that would hardly have been invented. It is clear that the court of Frederick II was a home of science, and it may have been the chief source of the experimental science of its age.

The best piece of experimental physics that emerged from the four hundred years that preceded William Gilbert's *De Magnete* (1600) was the *Epistola de Magnete* of Peter Peregrine (Petrus Peregrinus, Petrus de Maharn-Curia, Pierre de Maricourt, which is a village of Picardy). This work, addressed to Siger of Brabant, was written in 1269 at the siege of Lucera, the former seat of Frederick II, where the Saracens had been in revolt; it is not easy to regard this as a mere coincidence, and it is at least likely that Sicilian science was the source of his knowledge. Peter Peregrine's Epistle[7] is a tiny work, but stands out far beyond anything of the time. He tells us the qualities of the man of science:

> But know, dearest friend, that the investigator in this subject must understand nature and must not be ignorant of the celestial

[6] *The Art of Falconry, the De arte Venandi cum avibus*, tr. and ed. by C. A. Wood and F. M. Fyfe. Stamford Univ., 1943.

[7] Pietro Peregrino di Maricourt e la sua epistola 'De Magnete.' P. D. Timoteo Bertelli, Barnabita. Rome, 1868. (Contains Latin Version).
Epistle of Peter Peregrinus of Maricourt to Sygerus of Foncaucourt. Silvanus. P. Thompson. London, 1902. (English Translation).
Peter Peregrinus de Maricourt and his Epistola de Magnete. Silvanus. P. Thompson. Proc. Brit. Acad. 1905-6, p. 377. (Contains bibliography).

> motions; and he must himself be very diligent in manual operations, to the end that through the operation of this stone[8] he may show wonderful results. For by his carefulness he will in a short time be able to come at an error, which he could not possibly correct by means of his knowledge of nature and mathematics, if he lacked carefulness in the use of his hands. For in hidden operations[9] we search out much by manual industry, and for the most part we can make nothing perfect and complete without it. Yet there are many things subject to the rule of reason which we cannot completely investigate by the hand.

And indeed his results were remarkable. He describes the poles of the loadstone, shows how to find them; he distinguishes the north and south poles; he shows that like poles repel and unlike attract each other, and that fragments of a magnet, broken so as to separate its poles, become complete magnets. He explains the process of making iron magnets and describes the making of graduated and pivoted compasses. All this is sound experimental work, and though his book is marred by the assumption that the supposed effect of the heavens on the magnet can bring about a perpetual motion, there is nothing like it between the Alexandrian Greeks and the scientists of the seventeenth century.

Roger Bacon (c. 1214—c. 1294) was acquainted with Peter Peregrine, and gives him such high praise that we may suspect that the Picard was his initiator into experimental science during his sojourn in Paris. Bacon calls him one of the only two perfect mathematicians. He speaks of optical experiments 'which none of the Latins can understand, save one, to wit, Master Peter' (*Opus Tertium*; cap. 13). Master Peter is making a burning mirror 'and by the grace of God he will soon come to an end of it, which none of the Latins knew how to do. . . . This mirror was made with great expense and labour, for its constructor had to pay a hundred Paris pounds and worked for several years.' In fine 'he was a master of experiments:[10] and therefore he knows by experiment natural history and physics and alchemy, and all things in the heavens and beneath them: indeed he is ashamed if any layman, or grandam, or soldier, or rustic knows anything that he does not know.'

That Roger Bacon was also an experimental worker is beyond question. 'For,' he tells Pope Clement IV, 'during the twenty years

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[8] The loadstone or natural magnet.

[9] Those of which the mechanism is not obvious to the eye or reason.

[10] *Experimentum*. Experience, trial—a wider term than our present *experiment*.

that I have specially laboured in the attainment of wisdom, abandoning the vulgar path, I have spent upon these pursuits more than 2000. *l*, not to mention the cost of secret books, of various experiments, languages, tables and the like; add to all the sacrifices I have made to procure the friendship of the wise and to obtain assistants skilled in the tongues, in geometrical figures, tables and instruments' (*Opus Tertium*; cap. 17).

The most interesting part of Bacon's admirable compendium of the sciences is the sixth part of the *Opus Majus* (Part vi, c.1), entitled *De Scientia Experimentali*, which 'Experimental Science,' he tells us, is the mistress of all that precede it. Experiment confirms the result of reading, and tests the truth of the assertions of authors.

He then gives an example of an experimental investigation, remarkably in the vein of the 'tables of instances' suggested by his great homonym, Francis Bacon, more than three centuries later. Thus he says (*ibid.*, Part vi, c.2) that Aristotle, Avicenna, Seneca, talk about the colours of the rainbow, but the experimentalist will consider all manner of visible things to discover colours ordered in this manner. Hexagonal quartz crystals held in a ray of light coming through a shutter into a dark room show these colours (did Newton read of this?): other stones with superficial striations show them, as does water dripping from oars and mill-wheels, dewy grass in the morning sun, and glass flasks filled with water. Rays passing obliquely through the oil in a glass lamp: the sun shining through the minute apertures of woven fabrics or the chink of the narrowed eyelids, likewise give rainbow colours. This passage shows remarkable powers of observation.

Bacon's prediction of the future utility of science, of the inventions of the telescope, mocroscope, automobile, and flying-machine, are obviously connected with this attitude. Science is to be investigated by instruments, and will issue in the improvement of instruments.

In Peter Peregrine and Roger Bacon, experimental science reaches its peak. During the Middle Ages many other authors made theoretical investigations, such as those so admirable anticipations of modern dynamics that have been recounted by Duhem, Gilson and others, but they do not appear to have applied to them the test of experiment. Meanwhile much scientific work was being done in astronomy, alchemy, pharmacy and medicine, but it was directed to the practical ends of astrology, calendar-computation, the making of gold, and the healing art. The use of manual operations for the speculative investigation of nature seems almost to have been confined to Peter Peregrine and Roger Bacon.

The only contemporary scientist who is at all comparable to

these is St. Albert. It is difficult to compare their work because the former are primarily physicists, while the latter is biologist, mineralogist and chemist. St. Albert's scientific works are text-books of the subjects they treat, presented as commentaries on Aristotle. The latter received from him a degree of respect and authority which was not accorded him by the Oxford Franciscans. Thus Bacon says of Grosseteste :

> Master Robert, formerly Bishop of Lincoln, of holy memory, totally neglected the books of Aristotle and their ways, and by means of his own experience, and other authors, and other sciences, he busied himself with the matters in which Aristotle was expert, and knew and wrote the things of which the books of Aristotle speak, a hundred thousand times better than could be gathered in their incorrect translations. (*Compendium Studii,* cap. 8.).

St. Albert had a deep respect for tradition, and although he rejects a number of absurd tales about beasts and birds and stones, he does not submit all of his work to the test of experiment. He distinquishes what he has read from what he has seen, and he reports the latter most clearly and practically. He has the technical knowledge of a dog-fancier, a farrier, a miner and a metallurgist, he gives clear and vivid pictures of the birds and beasts he has encountered. He knows what is the object of natural science : thus in his treatise on minerals he says ' We do not here seek first causes of action and motion, which perhaps are the stars and their virtues and disposition, for this is the proper function of another science : but we seek the proximate efficient causes, which, existing in the matter, change the matter to something else ' (Lib. I. *Mineralium,* cap. 4). He knows that *experimentum* is the source of scientific knowledge, ' for at one time I was on my travels, going a long journey to mining districts in order to find out the natures of metals. For this reason I also investigated the alchemical transmutations of metals, so that they might to some extent make clear their natures and their proper accidents. For this is the best and most certain method of enquiry because the thing is then known through the cause of that particular thing, and there is the least degree of doubt about its accidents.' (Lib. III *Mineralium,* cap. 1). For all this, St. Albert's experimentum is further from our ' experiment ' than is that of Roger Bacon. The latter comes closer to modern science because, like Galileo, he sees the book of Nature as being written in the mathematical language. St. Albert's account of the world is wide, deep and human, but it is the less science because the less abstracted for quantitative reasoning.

St. Albert's great pupil, St. Thomas Aquinas, typifies the later scholastics, in that he understands the principles of science, is well acquainted with its findings, but is interested only in its general principles and not in its particular applications. St. Thomas puts the whole of science in its proper place among the philosophic disciplines, sketching from a conjectural cosmology a magnificent, but in part erroneous, picture of a hierarchy of creatures—minerals, plants, animals, men, planets, angels, rising to God Himself. But he is not interested, as far as we can see, in particular things, in elephants, dormice, vitriol and volcanoes; and thereby, for all his philosophic genius, he is less a scientist than Peter Peregrine, patiently fashioning his mirrors, filing his compass-needles and recording the seemingly trivial results which proved, in fact, to be the foundation of the science of magnetism.

What are we to think about this effervescence and subsidence of experimental science? It seems to have been quite contrary to the spirit of scholasticism and, indeed, of the western world in the Middle Ages. I would suggest that it was a phenomenon brought about by a peculiar set of circumstances. May we think that at the court of Frederick II, where Moslem, Jew, Greek and Latin met as equals, the opposing theological and ethical views that we know to have been mooted, effectively neutralised each other; and that it seemed to Frederick and his followers, as to the positivists of to-day, that the only certain knowledge was that of the properties of matter? This exaltation of material knowledge we may suppose to have spread to Frederick's University of Naples, and for a time to Paris and Oxford. Peter Peregrine, whose name shows him to have been a crusader and whom we know to have visited Apulia, had access to such sources. Roger Bacon was in contact with him. St. Albert mentions experiments he performed while studying at the University of Padua[11] and had observed an earthquake presumably in Southern Italy.[12] St. Thomas not only studied under St. Albert, but also received tuition in science at Naples from Peter of Hibernia.

The investigation of nature by observation and experiment was not, in fact, continued. The scholastic philosophers were interested in general principles, and desired only so much science as would enable them to construct a system. Science proceeds by investigation of minute particulars, and no man can discover for himself more than a very little, and that little only in a lifetime. It follows then that in the Middle Ages, when philosophy was far advanced but the

[11] *De Mineralibus*, II, tr. 3, c. i.
[12] *De Meteoris*, III, tr. 2, c. 12.

best account of science that could be given was confused and doubtful, the task of investigating nature seemed to be more difficult and less important than that of becoming a philosopher. In the seventeenth and eighteenth centuries science appeared to be simple, systematic, and not beyond the capacity of a philosopher, so that such men as Descartes, Leibnitz and Kant could acquire a mastery of both fields. To-day, science has grown to such a bulk and complexity that scarcely any scientist, let alone philosopher, has a clear view of its general outlines. Thus we have passed from mediaeval philosophers ignorant of science, through scientific philosophers of the seventeenth and eighteenth centuries, to twentieth-century scientists, ignorant of philosophy. Yet science in its researches into its own foundations is once more meeting the problems of metaphysics, and there is good hope that its own desires will cause it once more to seek a fertile union with divine Philosophy.

F. SHERWOOD TAYLOR.

THE PLACE OF SCIENCE IN MODERN CULTURE[1]

NATURAL science is concerned with understanding the working of material nature. The subject of this paper is the positive contribution which natural science, given its true place among the other activities of man, might make to the world. At the outset, it is essential to distinguish between science and the applications of science. When a certain knowledge of nature has been won, it is often possible to apply it to the control and manipulation of nature—to devise new techniques for handling matter. Modern industry is becoming more and more dominated by technology based in this way on applied science. The emphasis on the use of science in modern life is such that most of those who write on the 'place of science in society' are thinking primarily of the place of technics in society, and treat science only in relation to technics. But the question of the place of technics in society raises problems wholly different from

[1] From a paper delivered to the Newman Associatioon Conference at Ampleforth, August, 1944.

that of the place of science in society, and a lack of clear distinctions here can lead to a wholly false conceptions of the functions of science. That technics (which presupposes science) will be of major importance to this nation, it is impossible to deny; that science has significance only as a basis for material prosperity is not, however, a legitimate conclusion. Science is concerned with understanding nature, not with manipulating it for economic purposes. The great human problems centreing round the rapid growth of industrial technology must here be left aside, as being only indirectly connected with the functions of science in modern culture. It will be assumed without further argument that the great functions of natural science are concerned with the development of the mind and will, in leading men to live a life which is at once rational and supernatural, and thereby to exert a Christian influence in the world.

I.

Scientists, and others with some education in science, are faced with the problem of the influence of science on their thought and practical life, and hence on those of their fellow-men. For life is one; the scientific part of life affects the rest; a scientist becomes, in and through his scientific work, a better man or a worse, and his influence on his fellow-men is correspondingly helpful or harmful. It is therefore important to understand how science ought to be integrated with the rest of a scientist's life, and how this bears on his social influence.

The key to this matter is that scientific life is a type of life lived according to right reason. It is a version of rational life, an adaptation to a particular activity of the principles common to all rational life; consequently, if rightly lived, it should develop those qualities which make possible rational living in other departments of life. First, it demands the experience of the senses; not haphazard experience and hearsay evidence, but careful observation and intelligent searching; a mind alert for novelty but trained also in cautious verification, humbly obedient to facts. Second, it demands that observation shall be interpreted by reason, which brings order into the data of sense; it requires rigorous logic, controlled imagination, and intellectual insight; clear analysis and wide synthesis. It requires that we learn about nature from experience (as distinct from spinning myths) and that we interpret that experience by reason (as distinct from merely remembering or applying it). Third, it is characterised by a continual interplay of experiment and theory: experiments suggest hypotheses, hypotheses in turn suggest experiments which may verify them. Scientific life, then, requires a

rational unity of thought and action.[2] Fourth, it is a developing tradition: neither a code of unalterable rules, nor, on the other hand, a formless collecting of varying authenticity, devoid of established criteria for judging new developments. That is, the scientific spirit will tolerate neither a sterile immobility nor a rootless fickleness; scientific beliefs need periodic overhaul, and constant adjustment by the principle of 'workable compromise.' Fifth, as a consequence, scientific life requires freedom: freedom of thought, of discussion, of publication, and above all of investigation.[3] Sixth, scientific work is a social as well as a personal enterprise. All scientists must take on trust a vast body of facts established by their colleagues and predecessors, and it seldom happens that any important field of scientific investigation is monopolised for long by one man. Consequently, the practise of science requires both personal integrity and respect for one's colleagues; tolerance for others' opinions, and determination to improve one's own; the attempt not to overstate one's case, nor to underrate others'. Thus a mental 'climate' is favoured which is a balance of appreciation and criticism.

All the six general principles named belong also to other studies and indeed to any rationally-conducted enterprise, from philosophical research to the running of a farm. Every student can recognise in them the principles of his own speciality.[4] But in pursuing natural science we use a special adaptation of those principles, a particular version of rational method. Historians use another version, philosophers another; craftsmen, business men, housewives, all have their own special rational habits adapted to the work in hand. The method of natural science is not the sole and universal rational way of reaching truth; it is one version of rational method, adapted to a particular set of truths. The point needs emphasising both to indicate a common mistake and to show how to correct it. Large numbers of people have been misled into thinking that the procedure of natural science is the royal road to truth in every field, that what cannot be proved by science cannot be true, and that such propositions as 'The soul of man is immortal' are meaningless or at any rate unprovable. The mistake here lies in confusing part with whole—scientific method with rational method. But we can substitute for the mistake an

[2] It may be noted that the primacy lies with thought; experiments are undertaken for the sake of understanding, not vice versa. This agrees with the philosophical tradition of Plato, Aristotle, and St. Thomas, and not with 'activism,' which exalts action above contemplation.

[3] Cf. J. R. Baker, *The Scientific Life*.

[4] Obviously I am here dealing only with studies in so far as they depend on natural reason alone, and not on revelation—that is, theology and all dependent studies are excluded from consideration.

important truth, if, agreeing that science is not to be divorced from other rational pursuits, we find their connection in this: that science is not only a version but a *microcosm* of rational life.

By this is meant that in studying science and becoming familiar with that form of rational activity, one is led to understand rational life in general: one grasps that principles of all rational procedure through the practice of one form of it. It should then be easier to adapt those principles to other studies and to life in general. No doubt the same applies to any discipline; yet there seem to be certain advantages in natural science as an introduction to rational method. The phenomena are relatively simple; they are not far removed from sensible experience; they can often be repeated at will, under controlled conditions; they do not require for their understanding a mature wisdom or knowledge of the world; they do not make direct contact with problems of morals, still less with metaphysics. Mistakes in science have no such disastrous effects as errors in theology, or in principles of government. Moreover, science prepares the mind for philosophy[5]; it suggests problems which it cannot solve, provides examples of abstract argument, and serves as an introduction to rigorous thinking. Scientific work, then, should be a school of rational behaviour; a microcosm of rational life. Only when the microcosm is confused with the macrocosm is there a danger in the study of science.

These views may be applied to the question of the 'social function of science.' There are in fact two quite distinct (though not separable) ways in which scientists as such discharge their responsibilities to their fellow-men. One is through the application of science to make easier the material conditions of life. But the ease and frequency with which science is misapplied make this quite inadequate as a justification for its existence. A much stronger case can be made for science as a social force in terms of its approach to truth than in terms of its usefulness. Those whose work is primarily concerned with science itself, whether in teaching or research, can fulfil a highly important social function simply by their living devotion to the conservation, advance and propagation of scientific life. For if science can be made a real school of rational life, in virtue of its being a type and microcosm of rational procedure, it cannot help contributing to the personal development of those who follow it. Anyone who has seen the general intellectual development which can result from the proper teaching of science at a university must admit that the academic scientist can contribute not a little to the personal

[5] Cf. Maritain, *Science and Wisdom*; Heydon, *The God of Reason*.

growth of young people.[6] And society at large benefits from such personal development; for its vitality depends upon the vitality of individual people and their intellectual and moral ideals. Again, it will probably be agreed that the fundamental values of reason, and in particular the value of truth and the dignity of the human person, stand in great need of buttressing. And it may be that natural science will be one of their supports. For science has an advantage over history, or philosophy, or literature, as a representative of reason, in that so long as it remains alive at all, it cannot be wholly false to the true rational spirit. False science is easily disproved, by experiments reproducible at will; moreover it would fail if attempts were made to apply it. No one can coerce nature; it cannot be persuaded by the will nor affected by the imagination; whereas most other studies are liable to perversions which are much more difficult to eliminate and may greatly weaken the work of whole schools of thought and generations of scholars. At all events, while the prestige of science stands so high and the other learned disciplines so low in the common estimation, scientists have a special responsibility to uphold reason in science and reason in general.

In this account of the primary 'social function' of science, I have tried to retain what was positive in the older apologetic of science, which represented its value as due to its loyalty to truth, and to complete the argument by restating it in terms of the good of *persons*. For duties are owed ultimately not to ideals, such as truth, but to persons, who alone can be the subjects of rights and duties; speculation is incomplete unless it is directed to the good of persons. At the same time the view outlined cannot be accused of favouring a selfish and irresponsible attitude on the part of the scientist.

II.

So far all that we have said has been concerned with the purely natural plane; we have said nothing of man as raised by grace to share in the divine nature. Can a scientist find inspiration in scientific work for his Christianity? Can scientific life be so lived in Christ as to be a microcosm for the rest of Christian life?

Bearing in mind those characteristics of science which show it to be a type of rational life, we may observe that the personal develop-

[6] That scientific training is in practice often narrowing, and that scientists in real life are commonly less cultured than they should be, must be blamed not on study of the scientific microcosm but on neglect of the macrocosm. Many scientists are conspicuously lacking in the qualities which science ought to promote, because their education has been over-specialised. Reform of the education of scientists is overdue.

ment to which science can contribute is twofold : a discipline of mind and will on the one hand, and a positive development of the mind (by knowledge) and of the will (by love) on the other. Here, it seems, is the point of insertion of Christian life into scientific life. Christian life is essentially positive; by grace our whole nature is to be perfected and our life brought into a participation in the life of God himself—a participation in his knowledge, by faith, and in his love, by charity. And this perfecting of nature by grace requires a corresponding discipline, training, ' asceticism ' in the original sense—the troublesome business of setting mind and body, will and emotions, in their right relations; of subduing the discord which we all find within us. The rhythm of Christian life, then, is discipline and union with God : Cross and Resurrection. This new and super-human pattern of life should act like a leaven, permeating every part of human activity; all human operations can be disciplined and vivified by the life-giving power of Christ, and can in turn be used in the service of the Christian reintegration and rebirth. This suggests how natural science can take its part in the personal Christian life of a scientist.

To take first the ' negative ' aspect : discipline. All learning implies a twofold attention, to ' brute fact and iron law ' and to the synthetic interpretation thereof. It therefore forbids a man to consider only his own selfish claims, and shifts the centre of interest from his own life to other lives, other things, other events. Following von Hugel, we may say that the pursuit of knowledge demands 'courage, patience, perseverance, candour, simplicity, self-oblivion, continuous generosity towards others, willing correction of even one's most cherished views.'[7] All this is especially applicable to natural science. In particular, acquaintance with science heightens enormously one's appreciation of the bruteness of brute fact and the ironness of iron law , through the bracing, purifying contact with matter, which can make a considerable contribution to the asceticism of a man of science. There is constant friction and effort, which the Christian will use as so many occasions for a realistic self-surrender to the will of God, as expressed in the order he has established in nature—so many small chances to help carry the Cross. These considerations seem to apply equally well to all stages of scientific knowledge, and to applied science and technology as well as to pure science. In view of the large numbers of people preoccupied with technical problems, in factory and laboratory, it seems that such principles ought to be more widely understood.

[7] von Hugel, *Mystical Element of Religion*, vol. ii, p. 349.

If we turn to the positive or re-creative aspect, we find that, not only do many minds find real illumination in the details of the working of material created things, and therefore a new window on God himself (for truth cannot but illuminate Truth)—but further, that to live in the knowledge of well-established laws of nature, and to apply them as part of one's daily work, continually calls to mind the presence and creative activity of God. For the order of nature is not upheld without the creative power of God; this power did not act merely at one instant of time, but acts continually throughout all time. Science (if used in this way) will dispose a man to find God everywhere; and it is no long step for the Christian to pass from his presence as Creator to his intimate presence by grace in the soul. The will, moreover, is not left out of this movement. In recalling the presence of God it is easy to adore and love him, however momentarily. And, for the scientist whose mind is illumined both by the truths of revelation and the truths of science, and whose will is set to love God, there is a yet more intimate way in which science and Christianity may meet. The scientist is a priest of nature. Every created thing and every created person shows forth the splendour of God—that is, praises him. Non-living and non-rational things praise God by following his laws—a river in its flow, or a bird in its flight, for example. Men praise God by offering their whole selves freely and lovingly to him; they can praise him consciously, deliberately, with understanding and love in place of blind obedience. And through his intellect, through his understanding of nature, man can become the mouthpiece of nature, and make articulate its silent adoration. He offers back to God not only his own self, but the whole material universe, whose obedient dependence upon God he recognises and of which he is the highest member. He is the spokesman of nature and so its priest; for the office of a priest is to express outwardly the inward self-giving of men to God, in their adoration and desire of union with him. This priesthood towards nature is exercised in many ways—by craftmanship, for example, and by art; but here we are concerned only with the scientist. Clearly it is his knowledge of nature which gives the special colouring to the scientist's praise of God on its behalf. It is his insight (however imperfect) into the inner order of the workings of nature, that gives the peculiar quality to his priesthood. It is not difficult to see how all this can be fitted into Christian life, especially when it is remembered that all Christian life can be related more or less directly to the Christian participation in the priesthood of Christ and hence in his redemptive work.

A revolution in the scientist's personal life could be brought about

if these principles were lived. Whereas for the irreligious scientist the centre of gravity is commonly himself, or society, or some abstraction like 'progress,' for the Christian it should be God—Pure Act, the most intelligent and most alive of all beings, who is yet 'closer than hands and feet.' The pagan scientist commonly tends to have less admiration for the ingenuity displayed in nature than for the cleverness of men in finding it out; the Christian should be readier to wonder at nature, as he learns its workings, than to exploit it. The former is impressed with the extension of the fields of knowledge; the latter should appreciate also the immensity of the unknown wonders of God beyond their frontiers. The one tends to an anthropocentric, and the other a theocentric, humanism. And if the old standards of integrity in science are to be kept, we shall have need of more God-centredness and less man-centredness. Science depends for its integrity upon the personal virtue of scientists; the ignorance and pride of modern scientists are beginning to undermine it. It is for Christians who are also scientists to insist upon those personal standards of humility and disinterestedness which alone makes science possible.

E. F. CALDIN.

THE RELIGIOUS SITUATION IN 'EASTERN POLAND'

THE annexation by Soviet Russia of certain territory which after 1920 had again been part of the Polish State is now a thing not only accomplished in fact but recognised by those powers strong enough to have a say in the matter. We have heard a great deal about it (and doubtless shall hear more) from the several sides and from various aspects. The only people whose views we have not been able to hear are those most affected, the inhabitants of 'Eastern Poland'; the great powers have not asked them to express their choice.

It is not easy to estimate what would have been the result of a free plebiscite (a really free plebiscite would probably have been un-

attainable in the circumstances).[1] The people east of the Curzon Line are mixed, and accurate statistics of the ethnic elements are not easy to come by. A Polish estimate (quoted by Konovalov in *Russo-Polish Relations,* Cresset Press), based on the 1931 Polish census, gives a total population of 10¾ millions, of whom 36.4 per cent. were Poles, 40.6 per cent. Ukrainians, 11.8 per cent. Byelorussians,[2] 8.4 per cent. Jews and 2.8 per cent. others. These groups are largely, but not entirely, localised: Byelorussians in the north, Ukrainians in the south, Poles in both; in the provinces of Stanislawow, Volhynia and Polesia, Poles are a minority of under 25 per cent-

Accepting these figures with all necessary caution (*see* Konovalov, *passim*), we may assume that all the nearly four million (?) Poles would have voted for the *status quo,* and that most of the minority of Jews would prefer Soviet rule. But we cannot speak so confidently and generally of the Ukrainians and Byelorussians. There are reasons for thinking that perhaps a majority of the last-named would favour union with their neighbours of the Byelorussian Soviet Socialist Republic. The nearly 4½ million Ukrainians would have held the balance, and might have tipped it far either way. After 1917 there was a strong movement among them for independence, whether for the Western Ukraine alone or together with their fellows in Russian Ukraine, *vis-à-vis* both Poland and Russia (the Nazis have made the most of this separatist element). But the Ukrainians were by no means unanimous about this, and there was inevitably a large number of 'non-politicals,' who did not care either way so long as they were left alone. But even these last were moved by memories of the Ukrainian-Polish War of 1918 and by the policy of polonisation and repression carried on by their new masters. It is possible, even probable, therefore, that the Ukrainian vote would have given a good majority in favour of the U.S.S.R.—but for one factor. That is, religion.

The Polish Ukrainians are all peasants and in great majority Catholics. Christian shyness of a State whose official philosophy is materialist and where atheism is the 'established church,' reinforced by the peasant's natural suspicion of a communist regime, might have over-balanced the effects of their twenty years of discontent and disability under Polish rule. For forty-four years, till his death

[1] The plebiscite 'carried out on a broad democratic basis' by the occupying Russians in 1939 can in the circumstances hardly be accepted as an unconstrained and considered expression of the people's desire.

[2] 'White Russians,' but not as such anything to do with the 'white' Russians who opposed the 'reds.' Their official Polish label is 'White Ruthenians.'

last November, the outstanding figure among the Ukrainians in Poland was the Archbishop of Lwow, Andrew Szepticky. Writing in the *Eastern Churches Quarterly* for July 1944, one who knew him intimately states that in 1920 Szepticky 'considered the Curzon Line as consonant with justice,' justice, that is, to Poland. It is not difficult to believe that in 1945 he might have regarded continued Polish rule as the lesser of two injustices to the Ukrainians. Nor is it difficult to believe that many of his flock may think so too.

The differences between the two main groups of Slavs in 'Eastern Poland,' Poles on the one hand and Ukrainians and Byelorussians (including Polesians) on the other, have sometimes been reduced to ecclesiastical terms as 'Catholic' and 'Orthodox.' This, though significant, is not exact. It is true that the Poles are Catholics, of the Latin rite, and practically all the Byelorussians are Orthodox. But most of the Ukrainians, 3½ millions of them, are Catholic too—though of the Slav-Byzantine rite. They are often called 'Uniates' or 'Greek Catholics,' expressions undesirable for several reasons and not least because they obscure the fact that these Polish Ukrainians, with their Byzantine liturgy in Slavonic, their married parish clergy, and all the rest of it, are (like many similar people in other parts of the world) as authentically and unequivocally members of the Roman Catholic Church as the Bretons or the Irish—or the Poles themselves.

In other words, as I have written before (BLACKFRIARS, July 1944), 'the important inner difference between the two main groups of elements in Eastern Poland is cultural and religious, religious not in a "denominational" sense but in terms of tradition and mental habit. In a rough generalisation, the Poles are "Western," the others "Slav-Byzantine." Unhappily historical events have produced a situation wherein the Poles are prone to identify Catholicism exclusively with the West and to identify Slav-Byzantinism with their secular enemy, Russia; and in fact the Catholic Ukrainians *are* religio-culturally closer to the Russians than to the Poles.' What from an ecclesiastical point of view will be the destiny of these Byzantine Catholics—the biggest homogeneous group in 'Eastern Poland'—under Soviet rule is an interesting speculation.

There is not the slightest reason for supposing that the attitude of the Soviet Government to religion and its organisations has altered fundamentally; and the rather strident expressions of patriotism and loyalty of some ecclesiastical leaders in the U.S.S.R. prove nothing to the contrary. I recommend a reading of Paul B. Anderson's *People, Church and State in Modern Russia* (S.C.M. Press). The present external tolerance of religion in the U.S.S.R.

can be accounted for amply and consistently by the opportunism that is as characteristic of Soviet politics as it is of the politics of the dirtiest 'capitalist government.' No doubt the Orthodox Byelorussians and Polesians will be incorporated in the pertinent eparchies of the Russian Orthodox Church. What will happen to the Latin Catholic Poles (and Lithuanians) is a question. (Perhaps there will be no Poles east of the Curzon Line—reports of deportations of them are already heard). Notwithstanding the necessary Catholic opposition to Marx-Leninism, and in spite of the 'sad history of concordats' to which Benedict XV used to refer, the Holy See certainly will not refuse to treat with the U.S.S.R. Government if it can reasonably hope that by so doing Catholics (and for that matter other Christians) in Russia will be helped. But I venture to think that a stumbling-block in negotiations between the Vatican and the U.S.S.R. may well be a Soviet refusal to include other Roman Catholics, viz., the Byzantine Ukrainians, in any *modus vivendi*.

There has been an analagous situation before. After the partition of Poland of 1772-95 Russia tolerated the Latin Catholic Poles (the Jesuits were protected by the Empress Katharine II at a time when Pope Clement XIV had suppressed them in the rest of the world). But the Byzantine Catholics of Volhynia, etc. (who dated from a reunion-with-Rome movement in 1595) were gradually, by persuasion and force, reaggregated to the Orthodox Church. They were regarded as Russians, and therefore had to belong to the Russian state church.

It is likely that the same thing will happen now. The Soviet Government, having found that Christianity is not so easily eradicable, seems to be reviving Peter the Great's policy of a church well and truly bound to the wheels of the state. It would be hopeless to try and convert Poles to Russian Orthodoxy, but the Polish Ukrainians are another matter—they already share in the Slav-Byzantine culture. Obviously it is desirable from the Soviet point of view to detach as many people as possible from ultimate allegiance to a religious leader outside Russia—the Pope—and from membership in a closely-knit supranational church.

To what extent would the Catholic Ukrainians resist such a process? After 1772 many Byzantine Catholics in Russia quietly accepted Orthodoxy; they could hardly see the difference—the church services were practically the same, and that was the main thing for them. But many others resisted and, especially after the Polish insurrection of 1830, violent coercive measures were taken against them. These were ultimately successful and Slav-Byzantine Catholicism died in Russia, except in the Kholm region, where it

lingered on as an underground resistance till about 1875.[3] Again, when in September 1914 the invading Russian army gave every help to Orthodox missionaries in Eastern Galicia, they received very little encouragement from the Ukrainian population.

Another 'line' on this can be found in Czechoslovakia. The Rusins, or Ruthenians, of the Podkarpatska Rus, at the eastern end of Slovakia, originated in the Western Ukraine, and are Byzantine Catholics. In 1920-23 a considerable number of these people 'turned Orthodox'; the movement was fundamentally racial and cultural, a reaction from 'magyarisation' under the Hungarians (Cf., Poles and Ukrainians). But it must be noted that very many of the seceders soon returned to Catholic communion, and that practically all the clergy opposed the separation movement.

The Podkarpatska Rus, now occupied by Soviet troops, seems also to be providing evidence for the use of religious factors in Soviet politics. The bishop of the Orthodox minority there, hitherto dependent on the Serbian patriarch, recently asked that his diocese be included in the patriarchate of Moscow; and immediately afterwards it was reported that, at the alleged request of the Ruthenians, the Podkarpatska Rus is to be incorporated in the U.S.S.R. If this takes effect, there is likelihood of there also happening there what I have ventured to suggest is not merely a possibility but a probability in Eastern Galicia—an effort to detach Slav-Byzantine Christians from the Roman Catholic Church and to incorporate them in the Orthodox Church of the U.S.S.R.

DONALD ATTWATER.

POSTSCRIPT.—Since writing the above my attention has been drawn to certain reports said to emanate from the Polish Catholic news-agency K.A.P. These allege (*a*) that a bishop of the Byzantine Catholics in the Podkarpatska Rus ('Ruthenia,' so called) has 'turned Orthodox' and advocates the annexation of that territory by the U.S.S.R.; (*b*) that the Orthodox Metropolitan Nikolay (who is in very good standing with the Soviet authorities), is in Lwow and busily engaged in a drive to bring the Galician Ukranians into the Russian Orthodox Church. This last was about Christmas time. If the report be true, it comes significantly quickly after the death of Metropolitan Szepticky.—D.A.

[3] Hence a small minority of Catholic Byelorussians to-day. The present Catholic Ukrainians are in Eastern Galicia, which in the partition passed, not to Russia, but to Austria.

REVIEWS

POLISH SCIENCE AND LEARNING. A Series of Booklets edited by the Association of Polish University Professors and Lecturers in Great Britain. No. 5—Educational Issue. (Milford; Oxford University Press; 2s. 6d.).

The Polish Professors' *Educational Issue* consists of half a dozen articles on general questions, and another dozen and a half on every part of the Polish system of academic and technical schools, universities and training colleges—an impressive (if sometimes rather dry) account of all that has been achieved since the reforms of the *Commission* of 1793. Prof. Kukulski contributes a special article on these reforms and the permanent impetus they gave to the national life in spite of the political disasters that so soon intervened; uniformity, transference from the Church to the State, the substitution of Polish for Latin and of science for 'purely verbal humanistic learning' were the means used to make the system a real 'school for moral integrity and virtue.'

Of the general articles Prof. Powicke's delightful lecture on the history and genius of Oxford is the most remarkable; he holds up to the Conference of Inter-Allied Professors and Lecturers (July 1943) 'that will of the wisp, the medieval ideal of the *ius ubique docendi*.' Other articles too consider the contribution that education can make to European peace, but none have Prof. Powicke's understanding of the past; and some perhaps seem to put too much hope in 'democratic education,' 'teaching of world citizenship,' 'technics' and 'civics,' for this seems part of the modern attempt to abandon liberal education in favour of pure technique.

J.B.S.

TOWARDS A PLAN FOR OXFORD CITY. By Lawrence Dale. (Faber; 6s.).

The architectural disorder of Oxford to-day is patent and distressing. How did it come to be? This Mr. Dale makes clear in the 'analytical' part of his book (pp. 14-24), which diagnoses the historical, social and psychological conditions that engendered the present unloveliness. Can it in any way be remedied? This is the main argument, and its kernel is the building of a 'Mall' from the foot of Headington Hill to the railway stations, skirting Christ Church Meadow. Summarising its advantages, Mr. Dale says: 'The merit of the Mall is that everyone gains by it: it integrates the University and leaves it in peace; it joins up the severed town by a new and delightful link; it by-passes a large portion of the through traffic; it provides long-needed circulation; and gives the visitor and the whole community the enjoyment of the Meadow and

a new view of the dreaming spires. It civilises the Meadow in the root sense of the word and gives Oxford some "Backs." It puts St. Clement's and St. Ebbe's on the map for future development and preserves the ancient city. It is only a mile long and has only one bridge, and that over the Cherwell, and is by far the most economical thing to do.'

Writing as one with no authority in such matters, I agree with Mr. Dale on the reasonableness and desirability of the scheme. But against his too lyrical enthusiasm I would suggest in the first place that the quality of the work done is unlikely to be a continuous delight; we may learn much from Inigo Jones, but we cannot revive his workmen. Secondly, were the scheme carried out, Oxford generally would still be far from achieving the unity of—say—a typical eighteenth-century town.

Nevertheless, I wish his project well. How far his arguments will prevail with those in power is another matter. Neither Town nor University is notably pervious to reason, though the Gown likes to believe it is. The worldly-wise thing would be to talk a good deal about reason while actually stressing authority (i.e. the opinions of eminent men, English and foreign, with conspicuous degrees) and the danger of ridicule (from the eminent men aforesaid and socially important people). Such obliqueness might persuade.

W.S.

THE CATHOLIC SCHOOLS OF ENGLAND AND WALES. By H. O. Evennett. (Cambridge University Press; 3s. 6d.).

It is an excellent thing that the *Current Problems* series sponsored by the Cambridge University Press should extend its hospitality to a Catholic statement on Catholic schools. Mr. Evennett has done the work with tact, thoroughness, clarity and success—given of course that the thing required here and now was to provide solid information for non-Catholics rather than material for Catholic discussion. Information there is in plenty, historical and statistical, with a lucid explanation of the present crisis for Catholic schools. ('Though the Government proclaims "Equal educational opportunity for all," its policy spells in practice "Unequal financial support for different religious views." '). There are also many skilful asides, removing, one hopes, certain common misunderstandings of Catholic things.

For Catholics themselves it is a most urgent matter that the Catholic places of education described and appreciated here should also be places of Catholic education in the fullest sense. For Mr. Evennett's purpose it would have been inopportune to examine the work and aims of our schools in the light of first principles, but he rightly allows a place for self-criticism (pp. 101-2 and 121-3), and there is food for thought in his reflection: 'In theory, at least, the Catholic faith should be able to provide that common background between

boys of all classes which will not exist in their social outlook and habits.' Much remains to be done in ridding ourselves of complacency, and first principles in the matter of education are not as yet staled by familiarity. To take one point only—St. Thomas says briefly: *A patre filii accipere debent non solum esse per generationem sed disciplinam per instructionem.* What does that mean for us to-day? Is it not usually held that a Catholic father sufficiently does his duty if he chooses this school rather than that to educate his sons —in so far as politics and economics still permit any choice? And is this merely doctrinal development?

W.S.

THE SPIRIT OF FRANCE. Studies in Modern French Literature. By Wallace Fowlie. (Sheed and Ward; 6s.).

DE VILLON A PEGUY. By Wallace Fowlie. (L'Arbre, Montreal.).

A book like 'The Spirit of France' really does more harm than good. The title is promising, the subject is promising, the publisher's blurb is more than promising: the latter might be about a different book altogether, for it gives special mention to Léon Bloy whom the author does not mention at all. The book reads like a verbal translation of a jerky, hop-skip-and-jump conversation between a group of slick young Frenchmen rather impressed with their own cleverness. It contains information, but leaves no mark on the memory but irritation.

The French book has an endearing preface by Henri Focillon, and a disarming dedication in which the author's love of France is simply told. In these sentiments I am wholly with him. His French is very good indeed, not perfect: the effect is somewhat childish. It is a little surprising to learn that Péguy, the militant dreyfusiste, was 'exempt from political cares' until 1905. Good intentions are not a substitute for verification of facts, and approximations invalidate the good intentions and leave us unconvinced. What a pity.

R.B.

IRISHMAN'S DAY. By John Boland, M.P., South Kerry, 1900—1918. (Macdonald; 5s.).

This is a book which will be valuable in years to come. It is valuable now, for many of us will recall, if only from our newspapers, the persons and things which made news and history in our ears if not under our eyes. Newspaper-cuttings, Hansard, and several books more human still are used, the author tells us, as the hard bones of an interesting disquisition on Parliament and its manners, customs and daily business, witnessed at first hand by a Chief Whip of the Irish Party and filtered through a humane and temperate mind somewhat resembling the special calm of Maurice Baring. Front Bench manners seem admirably to disinfect the record from partisanship and give it the impartial tone of a good historian.

From the first mutterings of Protection and Tariff Reform to the dummy enactment of Home Rule, September 1914, we are escorted by a highly informed guide and even taken behind the scenes of many dramatic encounters. Yet sensation is avoided. Even Parnell's outrageous treatment of his followers in his last years is soft-pedallel, though he upset almost permanently the temper of a whole nation. In these days when the whole temper of Europe has been altered for the worse by a maniac's grievance it looks like a venial sin, but it is a good historian's part to use the scales of eternal justice and to point the right and wrong of events. There be historians who tell us that moral standards vary or soften according to the age. Not so, say we. The less historians they.

Manning and Gladstone are both at their best in their 'statecraft' correspondence, and it softens the asperities of partisanship to note how much the Liberal Party did in its great days for the progress of the nation. The great work came to a head after the Grand Old Man was in his grave, when Lloyd George in the great and acrimonious debate on the Welsh Church Bill presented us with the historic phrase that the Tory opposition (hereditary holders of Church lands) had *their hands dripping with the fat of sacrilege.* Screeching disclaimers were as summer wind in the faces of those facts which the author presents to justify the great Welshman's 'jewel five words long.'

Never to be ignored either is the account of what the Irish members did even for Empire Trade and Religious Education. The good that parties do is oft interred with their bones. So shall it not be while books like this are valued for their truth even more than for their arrangement or their style; both of these, in this neat five shilling tract, most clear and most alluring. JOHN O'CONNOR.

PRINCIPLES OF PROSPERITY. By Francis W. Hirst. (Hollis and Carter; 8s. 6d.).

Among the more vociferous of our post-war planners there is a growing spirit of financial irresponsibility; due, no doubt, to the astronomical budgets of war-time. A tentative suggestion that their most hare-brained schemes are not economically practical, calls forth a tirade against 'vested interests' and 'forces of reaction.' Mr. Hirst cannot be said to fit either of these vague abusive terms, and the Utopians would benefit from a glance through his criticisms. The book is an attempt to translate the essentials of Political Economy into terms that will be readily understood by the ordinary citizen. It is, after all, the ordinary citizen who will be victimised by the lightning cures of the political quack; and his best protection is a knowledge of a more orthodox remedy. The theory that everybody and everything can be subsidised from a bottomless public purse is a prevalent one; the explosion of that theory by the author is timely, and amply justifies any recommendation of this publication.

The introduction of analogies between Government and personal economic problems is useful, because it will lead to a better understanding of current difficulties. The public, ever awed by the self-styled experts, is inclined to treat matters of National Economy as entirely beyond comprehension, and content to leave them in what often prove to be incapable hands.

It is only when the author leaves his chosen road and ventures to offer Biblical quotations as justification for present-day Banking that he invites criticism. If the Banking system needs defence, nothing will be gained from such a method. In fact, it is likely to be worsted in contests of this kind. The occasional ethical expeditions do not, however, prevent the book from being eminently readable and a fund of common-sense.

MAURICE MCLOUGHLIN.

MODERN WELSH POETRY. Edited by Keidrych Rhys. (Faber; 6s.).
POEMS. By Lynette Roberts. (Faber; 6s.).

'English poems by contemporary poets of Welsh extraction' would be an accurate, if clumsy, title for Mr. Rhys's anthology. The exact quality of such a common denominator is hard to discover. True, there are bits of manifest Welsh dotted about these poems: place-names, slang, a cryptic blasphemy. But for the most part there is nothing to distinguish these 'Welsh' poets from any Englishman, American or Scot whose poetical manners meet with the approval of, say, *Poetry* (*London*) or *Penguin New Writing*.

A Welsh contribution to English poetry must mean more than private wisecracks with a Welsh accent. Many of Mr. Rhys's friends could with profit undergo the traditional discipline of the *cynghanedd*, with its metrical austerity and care for the *depth* of words. Fortunately the shoddy programme pieces in the anthology are more than redeemed by the work of such a poet as Alun Lewis, whose death in India is a major loss to poetry. His modest mind and careful imagery remind one strangely of another Welshman killed in another war, and Lewis's poem to Edward Thomas printed here is a moving epitaph to both poets.

> 'Climbing the steep path through the copse I knew
> My cares weighed heavily as yours, my gift
> Much less, my hope
> No more than yours.'

Miss Roberts, both as a member of the choir as well as a solo performer in her *Poems*, illustrates very well what an Anglo-Welsh poet can hope to achieve. She has the initial advantage of a mature mind, a lively curiosity (*'I was one of these / Always observant and slightly obscure'*) and the rare gift of seeming to make all her words new (*'Rose-hips red as braziers shine from the hedges'; 'Plains of space, free, sky-free, lifting a green tree on to a great*

plain'; 'Dead as icebone breaking the hedge'). And her sharp understanding of Welsh metrical forms gives a distinctive shape to her poetry; she uses an idiom and never an accent. Writing in English, she has, as she should have, a proper regard for the integrity of that language. But she comes to it fresh, inquisitive, with a Welsh memory. Her English readers should be glad. I.E.

THE INNOVATOR. By John Brett Robey. (Faber; 10s. 6d.).

Its title would hardly suggest that *The Innovator* is a novel concerned with the events leading up to the Crucifixion of Our Lord. It is indeed a strikingly original essay in a medium that invites disaster. Almost any scriptural novel at once induces a feeling of resentment. Quite apart from the Christian's sense of reverence towards the God-given record of the Bible, there is its unparalleled literary economy. To add to the story is to destroy it. One has only to think of Hall Caine, not to speak of the exquisitely written blasphemies of George Moore.

Mr. Robey's novel deals with the first four days of Holy Week, and in particular with the deliberations of the Sanhedrim. He draws a clear picture of the conflicting loyalties of the Jewish leaders and he makes such figures as Annas and Caiaphas consistent with the basic account of the evangelists. Many of the minor characters are excellently conceived: Hayyim, the cynical councillor; Susannah, the secret believer in the Messiah; the crude servants. Perhaps the novel's chief achievement is the character—for as such it emerges—of the City of Jerusalem. It comes to life with all its crowded humanity, its oriental splendour and squalor, the city of David and the city of the Roman soldiery. Most wisely Mr. Robey only introduces our Lord at the end, before the Sanhedrim at night; and the only words that are uttered by Him are those we already know.

Some of the incidental detail of *The Innovator,* however, seems to reveal a failure in discrimination. As realistic writing it is successful enough, but it would better serve a Hollywood film-scenario than a novel which, because of its theme, demands absolute singleness of mind. I.E.

NO DREAMERS WEAK. By Michael de la Bedoyere. (John Miles; 9s.).

At the present critical moment in world history the questions which Mr. de la Bedoyere poses and discusses are of the first importance. Never has it been so urgent that we should clear our minds concerning the spiritual and moral principles which should regulate international relations, and on the way in which Christian principles can be applied to world events. Discussion is heard on all sides at present on the political and economic background of European problems, but far less interest is shown in the more fundamental principles

of the spiritual background. It is vital that we should be reminded, as Mr. de la Bedoyere reminds us here, of this aspect of our problems.

He is not concerned with detailed plans, but rather with an analysis and a valuation of present trends. We may not always agree in detail with his analysis or with his criticism, but that is of minor importance, compared with the fact that we have been compelled to face the problem from this point of view. Only in so doing can we hope to discover the lines along which progress towards peace may be made in the light of Christian values.

But here a warning may not be unnecessary in pointing out how easily a political bias may show itself, even on this higher ground, in favour of personal political views deeply felt and held. It is a danger against which most of us will have to guard. The author of this book does not himself seem always quite immune from such political prepossessions. There is both justice and wisdom in all that he says of the treatment of Germany after the war.

MARGRIETA BEER.

FOUR QUARTETS. By T. S. Eliot. (Faber; 6s.).

The sequence of poems from *Burnt Norton* to *Little Gidding* is here reprinted, under a title which aptly suggests the chamber-music quality of the verse. The four poems can only be understood in their relation to each other, and this publication places them conveniently together for study. It does more than that: it presents them in a format whose austere beauty of typography and wonderful paper make it worthy of a great work of art.

LUKE TURNER, O.P.

THE WIND AND THE RAIN is now published by the Phoenix Press, and the current (Winter 1945) number is excellent value—48 well-printed pages for 1/-. Especially notable is a study by Dallas Kenmare of the poetry of Francis Berry and David Gascoyne.

BLACKFRIARS

(with which is incorporated *The Catholic Review*).

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